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four-wheel drive, it should be understood that the invention is applicable to front-steering or two-wheel-drive lawn mowers.

The lawn mower 10 further comprises a power source 18 supported by the frame 12. The power source may be any type. known in the art, such as a gasoline-powered, internal-combustion engine. The engine drives a hydraulic pump (not shown) that supplies hydraulic fluid to hydraulic motors (not shown) drivingly connected to the wheels 14 and 16. The lawn mower 10 further comprises an operator's seat 20, and a conventional steering system, including a steering wheel 22, enabling the operator to steer the lawn mower 10. In the illustrated construction, the steering system is hydraulic and is connected to the rear wheels 16 to steer the lawn mower 10.

The lawn mower 10 further comprises front and rear rows 26 and 30, respectively, of cutting deck assemblies 34. More particularly, in the illustrated construction, the lawn mower 10 has three side-by-side front cutting deck assemblies 34 in front of the front wheels 14, and two rear cutting deck assemblies 34 behind the front wheels 14 and in front of the rear wheels 16. As is known in the art, each rear deck assembly 34 is aligned with the gap between two adjacent front deck assemblies 34.

Each of the cutting deck assemblies 34 includes (see Figs. 2-5) a single-spindle mulching deck 38 defining a downwardly opening space 42 (Fig. 4). The deck 38 is located between and supported by a pair of laterally-spaced, generally verticallyextending side plates 46 and 48. The term "lateral" is used

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herein to mean the direction from one side of the lawn mower to the other, i.e., perpendicular to the forward-rearward direction. Two front wheels 50 rotate about an axle 54 (Figs. 2 and 3) extending between the side plates 46 and 48 in front of the deck 38, such that each front wheel 50 supports one of the side plates 46 and 48 and the deck 38 for movement over the ground. A rear roller 58 extends between the side plates 46 and 48 and also supports the side plates 46 and 48 and the deck 38 for movement. over the ground. The roller 58 is behind the deck 38 and extends . across substantially the entire width of the deck 38. 58 resists scalping and stripes the grass.

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The deck 38 is mounted on the side plates 46 and 48 such that the height of the deck 38 relative to the ground is adjustable. In the illustrated construction, the deck 38 includes spaced deck plates 66 and 68 (Figs. 3 and 5) extending upwardly adjacent the side plates 46 and 48, respectively. The upper end of each side plate 46 or 48 has thereon (see Fig. 2) generally horizontal, inwardly-extending ears 69 and 70, with the ear 69 adjacent the front of the side plate and the ear 70 adjacent the rear of the side plate. Fixed to the ears 69 and 70 of each side plate 46 or 48 is an elongated plate member 71 having outwardly-extending ears 72 and 73 respectively secured to the ears 69 and 70 by suitable means such as bolts or screws 74. Each side plate 46 or 48 and the corresponding plate member 71 has therein (see Figs. 4 and 6) a series of holes 76. Each of the deck plates 66 and 68 has therein several vertically-spaced

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series of holes 78. Bolts 80 extending through holes 76 in the side plates 46 and 48 and in the plate members 71 and through holes 78 in the deck plates 66 and 68 secure the deck 38 to the side plates 46 and 48. The height of the deck 38 is adjusted by changing the holes 78 in the deck plates 66 and 68 and/or the holes in the side plates 46 and 48 and in the plate members 71 through which the bolts 80 extend.

A single spindle 84 (Fig. 4) is mounted for rotation about a generally vertical axis within the space 42 defined by the deck 38. The spindle 84 is driven by a hydraulic motor 88 on top of. the deck 38. The above-mentioned pump supplies hydraulic fluid to the motor 88. It should be understood that other means could be used to drive the spindle 84.

A set of cutting blades is mounted on the spindle 84 for rotation therewith. In the illustrated construction, as shown in Figs. 3 and 4, each blade set includes a lower, leading blade 92 and an upper, trailing blade 96. The leading blade 92 has a leading cutting edge and an upwardly angled trailing edge or lift. Preferably, the lift of the leading blade 92 is angled upwardly at an angle of approximately forty-five degrees. The trailing blade 96 has a leading cutting edge for cutting clippings deflected upwardly by the lift of the leading blade 92. The blades are preferably identical to those disclosed in U.S. Patent Application Serial No. 05/72/197, filed January 22, 1997, titled "ROTARY LAWN MOWER MULCHING DECK" and assigned to the

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assignee hereof. In alternative embodiments of the invention, different blade arrangements can be employed.

Each of the deck assemblies 34 is mounted on the frame 12 by a generally L-shaped, horizontally-extending lifting arm 112, such that each deck assembly is mounted on its own lifting arm 112. The lifting arm 112 has (see Figs. 2 and 3) a laterallyextending inner leg 116 with an inner end connected to the frame 12 for pivotal movement about a generally horizontal axis 120 extending in the forward-rearward direction. The arm 112 also has an outer leg 124 extending in the forward-rearward direction. A cross member 128 is mounted on the outer end of the outer leg 124 for pivotal movement about a generally vertical axis 132 and about a generally horizontal axis 136 extending in the forwardrearward direction. Each of the opposite, laterally-spaced ends of the cross member 128 has thereon (see Figs. 2, 3, 5 and 6) a downwardly and slightly rearwardly extending arm 140. The lower end of one arm 140 is connected to the side plate 46 for pivotal movement about a generally horizontal, laterally-extending axis 144 adjacent the forward ends of the side plates 46 and 48. The lower end of the other arm 140 is connected to the side plate 48 for pivotal movement about the axis 144.

A hydraulic assembly 148 (partially shown only in Fig. 5) connected between the arm 112 and the frame 12 pivots the arm about the axis 120 for lifting and lowering the deck 38. When the deck is lowered for cutting, the hydraulic assembly allows the lifting arm to "float," thereby allowing the deck 38 to move

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vertically relative to the frame 12. The connection of the deck 38 to the arm 112 via the cross member 128 allows the deck 38 to pivot relative to the frame 12 about the three mutually perpendicular axes 132, 136 and 144. This mounting arrangement enables the deck 38 to adjust to undulating terrain, thereby substantially avoiding scalping.

It should be understood that the lawn mower 10 could have only two or more than three cutting decks in the front row, and only one or more than two cutting decks in the rear row. Also, other arrangements could be used to mount the decks on the frame 12.

Various features of the invention are set forth in the following claims.

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#### CLAIMS

- 1. A gang-type rotary lawn mower comprising
- a frame supported by wheels for movement over the ground,
- a power source which is mounted on the frame and which drives at least two of the wheels,
  - an operator's seat mounted on the frame,
- a steering system enabling the operator to steer the lawn mower,
- at least two side-by-side front rotary cutting deck assemblies mounted on the frame, the front deck assemblies defining a gap between adjacent front deck assemblies, and
- at least one rear rotary cutting deck assembly mounted on the frame behind the front deck assemblies, each rear deck assembly being aligned with a respective gap between adjacent front deck assemblies,

each of the front and rear deck assemblies including a single-spindle cutting deck defining a downwardly opening space, a single spindle mounted for rotation about a generally vertical axis within the space, and at least one cutting blade mounted on the spindle for rotation therewith.

2. A lawn mower as set forth in cadim 1 wherein the front front of the front deck assemblies are mounted on the frame wheels, and the rear deck assembly is mounted on the frame behind the front wheels and in front of the rear wheels.

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- 3. A lawn mower as set forth in claim 1 wherein each deck assembly also includes a rear roller supporting the associated deck for movement over the ground, and wherein the deck has a width such that the roller extends across substantially the entire width of the deck.
- 4. A lawn mower as set forth in claim 3 wherein each of the front and rear deck assemblies includes a pair of laterally-spaced, generally vertically-extending side plates having forward ends, a first front wheel supporting one of the side plates for movement over the ground, and a second front wheel supporting the other of the side plates for movement over the ground, wherein the rear roller extends between the side plates and supports the side plates for movement over the ground, wherein the associated deck is located between the side plates and in front of the roller and is mounted on the side plates such that the height of the deck relative to the ground is adjustable.
  - 5. A lawn mower as set forth in claim 1 wherein each deck assembly also includes a hydraulic motor which is mounted on the deck and which is drivingly connected to the spindle.

VA lawn mower as set forth in claim 1 wherein each deck assembly includes a set of cutting blades mounted on the spindle for rotation therewith, the set of blades including a lower, leading blade having a leading cutting edge and an upwardly angled trailing edge, and an upper, trailing blade having a leading cutting edge for cutting clippings deflected upwardly by the upwardly angled trailing edge of the leading blade, the trailing blade extending at a non-perpendicular angle relative to the leading blade so that clippings coming off the trailing edge of the leading blade are cot immediately by the trailing blade before the clippings/start swirling around within the space.

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7. A lawn mower as set forth in claim 1 wherein each deck assembly is connected to the frame by a cross member connected to the frame for pivotal movement about a generally vertical axis and about a generally horizontal axis extending in the forwardrearward direction, the cross member having opposite, laterallyspaced ends, one of the cross member ends being connected to one of the side plates of the associated deck assembly for pivotal movement about a generally horizontal, laterally-extending axis adjacent the forward ends of the side plates, and the other of the cross member ends being connected to the other of the side plates of the associated deck assembly for pivotal movement about the generally horizontal, laterally-extending axis.

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- A lawn mower as set forth in claim 7 wherein each of the deck assemblies is connected to the frame by a respective generally L-whaped, horizontally-extending arm having a laterally-extending inner leg with an inner end connected to the frame for pivotal movement about a generally horizontal axis extending in the forward-rearward direction, and the arm having an outer leg extending in the forward-rearward direction, the outer leg having an outer end, and wherein the cross member is mounted on the outer ent of the outer leg.
- 9. A lawn mower as set forth in claim 8 wherein the arm is operable to lift the associated deck assembly relative to the frame.
- 10. A lawn mower as set fouth in claim 1 wherein each deck assembly is connected to the frame by a respective lifting arm operable to lift the associated deck assembly relative to the frame, such that each of the deck assemblies is connected by its own lifting arm to the frame.

- A rotary lawn mower comprising
- a frame supported by wheels for movement over the ground,
- a power source which is mounted on the frame and which drives at least two of the wheels,
  - an operator's seat mounted on the frame,

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a steering system enabling the operator to steer the lawn mower, and

a rotary cutting deck assembly including a pair of laterally-spaced, generally vertically-extending side plates which have forward ends and which are supported for movement over the ground, a single-spindle cutting deck defining a downwardly opening space, the deck being located between the side plates and being mounted on the side plates such that the height of the deck relative to the ground is adjustable, a single spindle mounted for rotation about a generally vertical axis within the space, and at least one cutting blade mounted on the spindle for rotation therewith, the deck assembly being connected to the frame by a cross member connected to the frame for pivotal movement about a generally vertical axis and about a generally horizontal axis extending in the forward-rearward direction, the cross member having opposite, laterally spaced ends, one of the cross member ends being connected to one of the side plates for pivotal movement about a generally horizontal, laterallyextending axis adjacent the forward ends of the side plates, and the other of the cross member ends being connected to the other

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the side plates for pivotal movement about the generally horizontal, laterally-extending axis.

- assembly is connected to the frame by a generally L-shaped, horizontally-extending arm having a laterally-extending inner leg with an inner end connected to the frame for pivotal movement about a generally horizontal axis extending in the forward-rearward direction and the arm having an outer leg extending in the forward-rearward direction, the outer leg having an outer end, and wherein the cross member is mounted on the outer end of the outer leg.
  - 13. A lawn mower as set forth in claim 12 wherein the arm is operable to lift the deck assembly relative to the frame.
  - 14. A lawn mower as set forth in claim 11 wherein the deck assembly also includes a hydraulic motor which is mounted on the deck and which is drivingly connected to the spindle.

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assembly includes a set of cutting blades mounted on the spindle for rotation therewith, the set of blades including a lower, leading blade having a leading cutting edge and an upwardly angled trailing edge, and an upper, trailing blade having a leading cutting clippings deflected upwardly by the upwardly angled trailing edge of the leading blade, the trailing blade extending at a non-perpendicular angle relative to the leading blade so that dippings coming off the trailing edge of the leading blade are cut immediately by the trailing blade before the clippings—start swirling around within the space.

16. A lawn mower as set forth in claim 11 wherein the deck assembly also includes a first front wheel supporting one of the side plates for movement over the ground, a second front wheel supporting the other of the side plates for movement over the ground, and a rear roller extending between the side plates and supporting the side plates for movement over the ground, wherein the deck is located in front of the roller, and wherein the deck has a width such that the roller extends across substantially the entire width of the deck.

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17. A lawn mower as set forth in claim 11 wherein the ends of the cross member have thereon respective downwardly extending arms, the arms having respective lower ends, the lower end of one of the arms being connected to one of the side plates for pivotal movement about the senerally horizontal, laterally-extending axis, and the lower end of the other of the arms being connected to the other of the aide plates for pivotal movement about the \laterally-extending axis. generally horizontal,

A gang-type rotary lawn mower comprising a fhame,

a pair of front wheels supporting the frame for movement over the ground,

a pair of rear wheels supporting the frame for movement over the ground,

a power source which is mounted on the frame and which drives at least one of the pairs of wheels,

an operator's seat mounted on the frame,

a steering system enabling the operator to steer the lawn

mower, at least two side-by-shie front rotary cutting deck assemblies mounted on the frame in front of the front wheels, the front deck assemblies defining a gap between adjacent front deck assemblies, and

at least one rear rotary dutting deck assembly mounted on the frame behind the front wheels and in front of the rear wheels, each rear deck assembly being aligned with a respective gap between adjacent front deck as emblies,

each of the front and rear deck assemblies including a pair. of laterally-spaced, generally vertically-extending side plates having forward ends, a first front wheel supporting one of the side plates for movement over the ground, a second front wheel supporting the other of the side plates for movement over the ground, a rear roller extending between the side plates and supporting the side plates for movement over the ground, a

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single spindle cutting deck defining a downwardly opening space, the deck being located between the side plates and in front of the roller and being mounted on the side plates such that the height of the deck relative to the ground is adjustable, the deck having a width such that the roller extends across substantially the entire width of the deck, a single spindle mounted for rotation about a generally vertical axis within the space, at least one cutting blade mounted on the spindle for rotation therewith, and

each of the deck assemblies being connected to the frame by a respective generally k-shaped, horizontally-extending lifting arm operable to lift the associated deck assembly relative to the frame, such that each of the deck assemblies is connected by its own lifting arm to the frame, each arm having a laterallyextending inner leg with an inner end connected to the frame for pivotal movement about a generally-horizontal axis extending in the forward-rearward direction, and each arm having an outer leg extending in the forward-rearward direction, the outer leg having an outer end, and a cross member mounted on the outer end of the outer leg for pivotal movement about a generally vertical axis and about a generally horizontal axis extending in the forwardrearward direction, the cross member having opposite, laterallyspaced ends, one of the cross member ends being connected to one of the side plates of the associated deck assembly for pivotal movement about a generally horizontal, laterally-extending axis adjacent the forward ends of the side plates, and the other of

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the cross member ends being connected to the other of the side plates of the associated deck assembly for pivotal movement about the generally horizontal, laterally-extending axis.

- 19. A lawn mower as set forth in claim 18 wherein each deck assembly also includes a hydraulic motor which is mounted on the deck and which is drivingly connected to the spindle.
- assembly includes a set of cutting blades mounted on the spindle for rotation therewith the set of blades including a lower, leading blade having a leading cutting edge and an upwardly angled trailing edge, and an upper, trailing blade having a leading cutting edge for cutting clippings deflected upwardly by the upwardly angled trailing edge of the leading blade, the trailing blade extending at a non-perpendicular angle relative to the leading blade so that clippings coming off the trailing edge of the leading blade are cut immediately by the trailing blade before the clippings start swirling around within the space.

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### ABSTRACT OF THE DISCLOSURE

A gang-type rotary lawn mower including a frame supported by wheels for movement over the ground, a power source which is mounted on the frame and which drives at least two of the wheels, an operator's seat mounted on the frame, a steering system enabling the operator to steer the lawn mower, at least two sideby-side front rotary cutting deck assemblies mounted on the frame, the front deck assemblies defining a gap between adjacent front deck assemblies, and at least one rear rotary cutting deck assembly mounted on the frame behind the front deck assemblies, each rear deck assembly being aligned with a respective gap between adjacent front deck assemblies, each of the front and rear deck assemblies including a single-spindle mulching deck defining a downwardly opening space, a single spindle mounted for rotation about a generally vertical axis within the space, and at least one cutting blade mounted on the spindle for rotation therewith.

# Declaration and Power of Attorney For Patent Application

As a below named inventor, I heraby declare that:

My remidence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole invantor of the subject matter which is claimed and for which a patent is sought on the invention entitled "GANG-TYPE ROTARY LAWN MOWER" (Attorney on the invention entitled "GANG-TYPE ROTARY LAWN MOWER" (Attorney on the invention of which is attached on the invention entitled "GANG-TIFE MUTARY LAWN MOMER" (Attorn Docket No. 78209/9809), the specification of which is attached

I hereby state that I have reviewed and understand the contents of the above identified specification, including the

I acknowledge the duty to disclose to the Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, \$1.56.

ADDRESS ALL COMMUNICATIONS IN OR PERTAINING TO THIS APPLICATION TO:

David R. Price MICHAEL, BEST & FRIEDRICH 100 East Wisconsin Avenue 53202-4108 Milwaukee, WI

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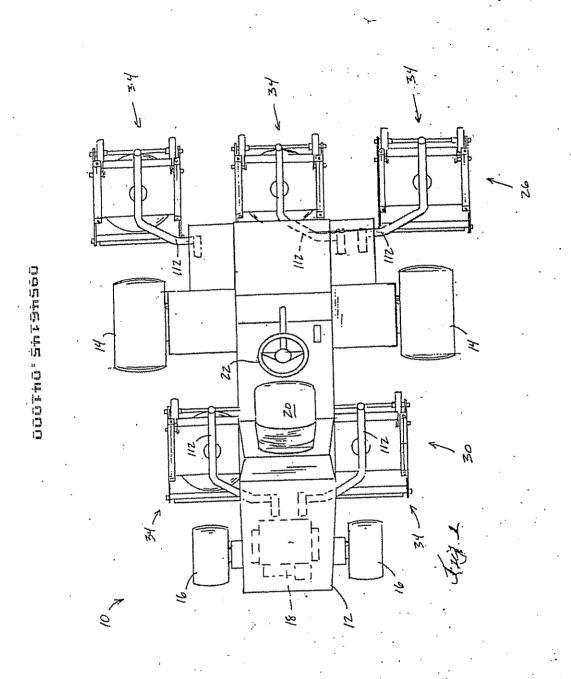
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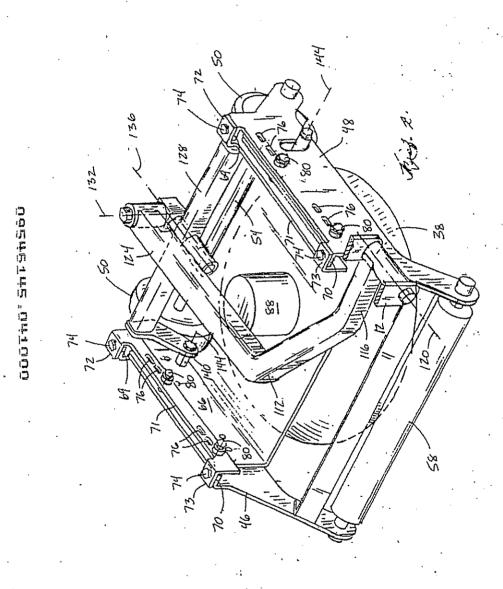
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or statements and the like so made are punishable all of the imprisonment, or both, under Section 1001 of Title 18 of the imprisonment, or both, under Section 1001 of Title 18 of the imprisonment, or both, under section 1001 of Title 18 of the imprisonment, or both, under section 1001 of Title 18 of the imprisonment, or both, under section 1001 of Title 18 of the imprisonment, or both, under section 1001 of Title 18 of the imprisonment, or both, under section 1001 of Title 18 of the imprisonment, or both, under section 1001 of Title 18 of the imprisonment, or both, under section 1001 of Title 18 of the imprisonment, or both, under section 1001 of Title 18 of the imprisonment, or both, under section 1001 of Title 18 of the imprisonment, or both, under section 1001 of Title 18 of the imprisonment, or both, under section 1001 of Title 18 of the imprisonment, or both, under section 1001 of Title 18 of the imprisonment. thereon.

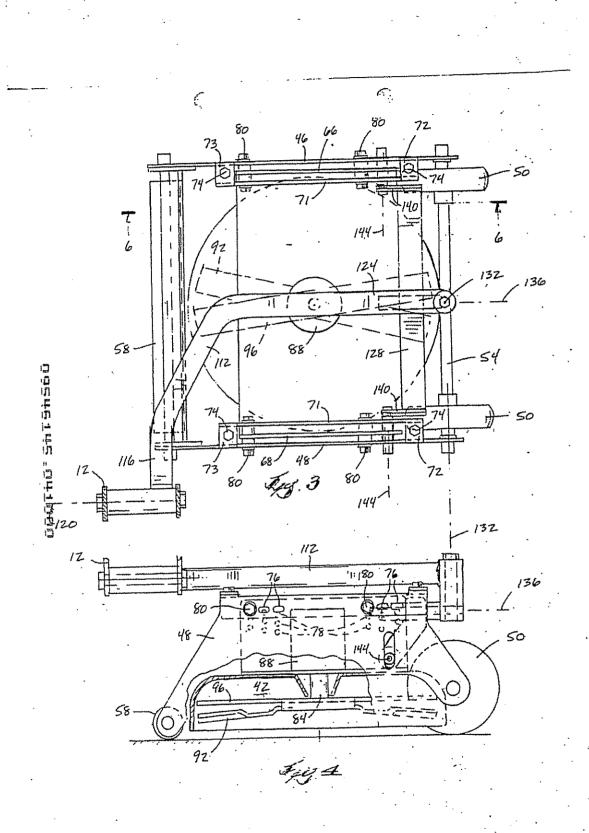
Full name of sole inventor: Richard D. Bednar Inventor's signature Richard D. Bedra

1-31-97 Date

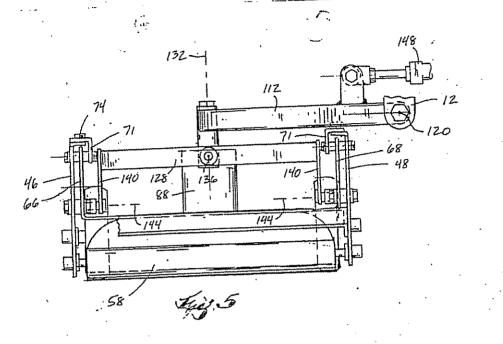
Residence: Citizenship: Post Office Address: Lake Mills, Wisconsin United States of America N6804 Shorewood Hills Rd. Lake Mills, Wisconsin 53551

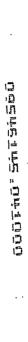


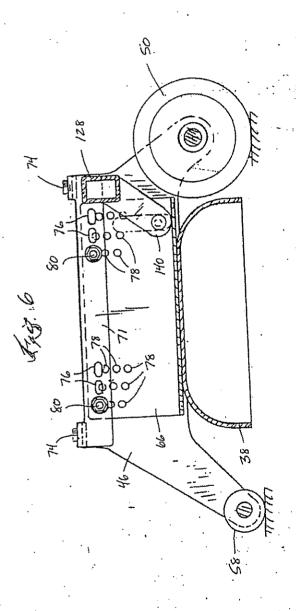


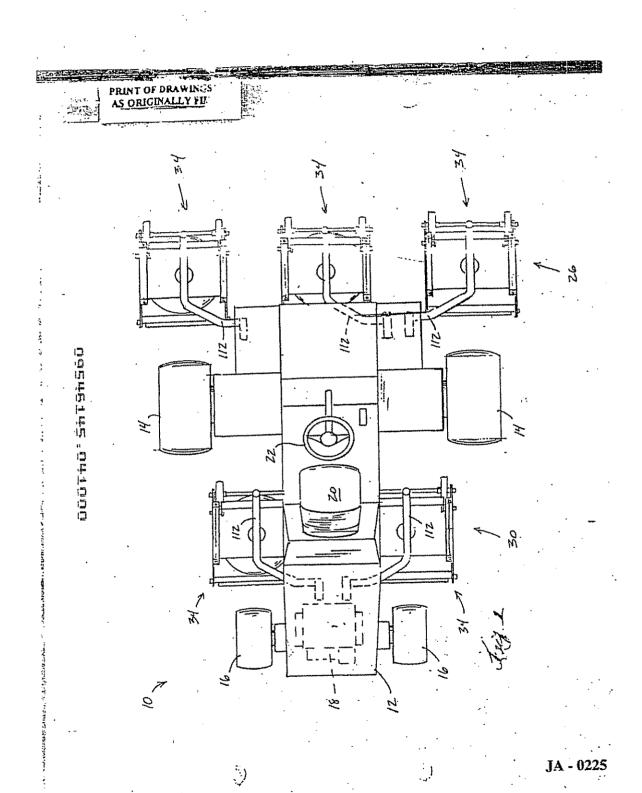


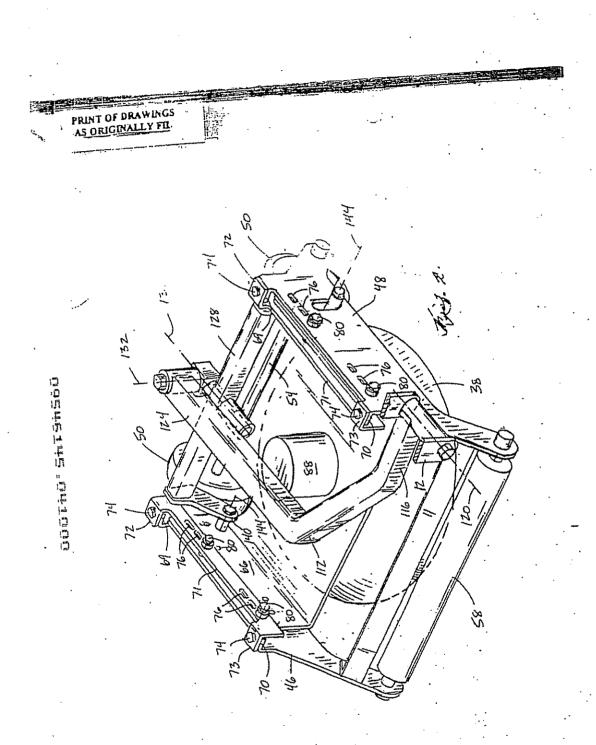






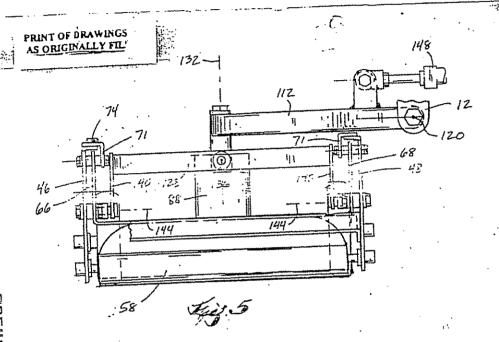


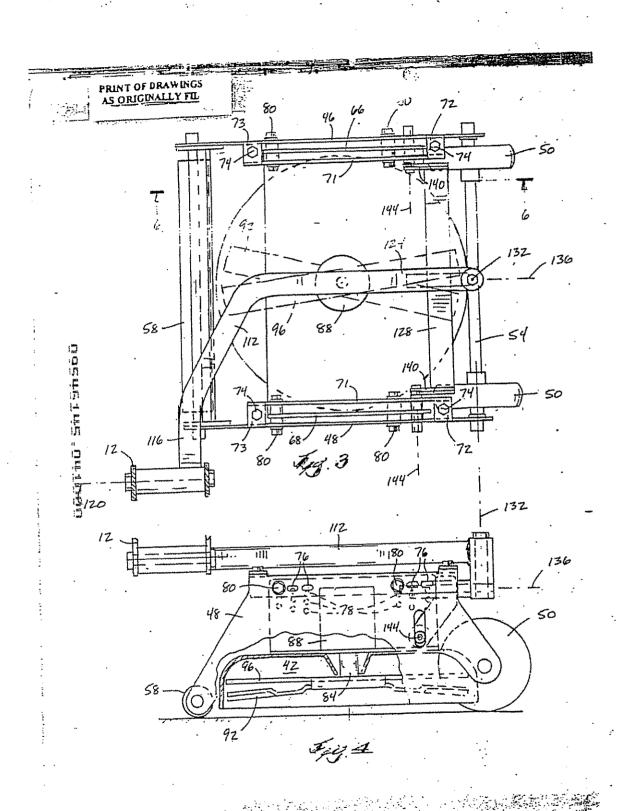


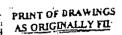


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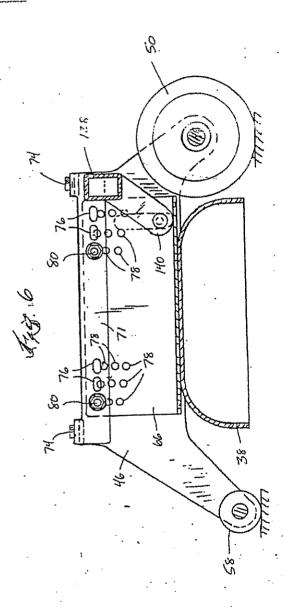








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NEW, CONTINUATION, DIVISIONAL OR CONTINUATION-IN-PART APPLICATION UNDER 37 C.F.R. §1.53(b)

Attorney Docket No. 7016R-000015/GOA

Express Mail Lebel No. EJ948538840US

Date April 10, 2000

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Hon. Commissioner of Patents and Trademarks Washington, D. C. 20231

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Transmitted herewith for filing under 37 C.F.R §1.53(b) is a patent application for

### GANG-TYPE ROTARY LAWN MOWER

First named inventor identified by:

or [X] Attorney Docket No. (see above)

Type of Application

] This application is a new (non-continuing) application.

[X] This application is a [X] continuation / [] divisional / [] continuation-in-part of prior application No. 08/794,141. Amend the specification by inserting before the first line the sentence:

-This is a continuation of United States patent application No. 08/794,141, filed February 3, 1997, and U.S. Patent 5,017, 530

[X] The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied, is considered part of the disclosure of the accompanying application and is hereby incorporated by reference therein.

If for some reason applicant has not requested a sufficient extension of time in the parent application, and/or has not paid a sufficient fee for any necessary response in the parent application, amount has not paid a summent less for any necessary response in the parent application and/or for the extension of time necessary to prevent the abandonment of the parent application prior to the filing of this application, please consider this as a Request for an Extension application to the filing of this application, please consider this as a Request for an Extension application. application prior to the niting of this application, please consider this as a Request for an Extension for the required time period and/or authorization to charge our Deposit Account No. 08-0750 for any fee that may be due. THIS FORM IS BEING FILED IN TRIPLICATE: one copy for this application; one copy for use in connection with the Deposit Account (if applicable); and one copy for the above-mentioned parent application (if any extension of time is necessary).

#### **Contents of Application**

Specification of 21 pages;

A microfiche computer program (Appendix);
 A nucleotide and/or amino acid sequence submission;

Because the enclosed application is in a non-English language, a verified English translation [] is enclosed [] will be filed.

Cancel original claims 2-20 of the prior application before calculating the filing fee. (At least one original independent clalm must be retained for filing date purposes.)

[X] Drawings on 5 sheets;

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Attorney Docket No.	7016R-000109		
Express Mail Label No.	EJ 948538840US		
	April 10, 2000	٠.	• •

[x] A signed Oath/Declaration [x] is enclosed / [] will be filed in accordance with 37 C.F.R. §1.53(f).

The enclosed Oath/Declaration is [ ] newly executed / [ x ] a copy from a prior application under 37 C.F.R. §1.63(d) / [ ] accompanied by a statement requesting the deletion of person(s) not inventors in the continuing application.

#### Fees

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	Number				Humber		~		Basic Fee
FILING FEE	Filed				Extra		Rate	,	\$690.00
CALCULATION			20		0		\$18.00	=	\$0.00
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- [x] A check is enclosed to cover the calculated fees. The Commissioner is hereby authorized to charge any additional fees that may be required, or credit any overpayment, to Deposit Account No. 08-0750. A duplicate copy of this document is enclosed.
- [ ] The calculated fees will be paid within the time allotted for completion of the filling requirements.
- [ ] The calculated fees are to be charged to Deposit Account No. 08-0750. The Commissioner is the calculated lees are to be charge any additional fees that may be required, or credit any hereby authorized to charge any additional fees that may be required, or credit any overpayment, to said Deposit Account. A duplicate copy of this document is enclosed.

3. Priority	information
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49.74

- Application No. [] Foreign Priority: Priority based on
  - [ ] A copy of the above referenced priority document [ · ] is enclosed / [ ] will be filed in due course, pursuant to 35 U.S.C. §119(a)-(d).
- Provisional Application Priority: Priority based on United States Provisional Application No. \_ filed \_\_\_\_ is claimed under 35 U.S.C. §119(e).

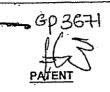
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Sheet 2 of 3

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•	Attorney Docket No. 7016R-000109					
	Express Mail Label No. EJ948538840US					
	Data April 10, 2000					
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4.	Other Submissions					
	[ ] A Preliminary Amendment is enclosed.					
	[ ] An Information Disclosure Statement, sheets of PTO Point 1444 patent(s)/publications/documents are enclosed.					
	[] A power of attorney [] Is submitted [] with the new Oath/Declaration.					
	[] is submitted [] with the new Countries  [] is in the original papers / [] a copy is  [] is of record in the prior application and [] is in the original papers / [] a copy is					
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0110	An Everess Mailing Certificate is enclosed.					
<del>  1</del>	[x] Other. Return Postcard; a Preliminary Amendment will follow.					
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S	Attention is directed to the fact that the correspondence address for this application is:					
•	Harness, Dickey & Pierce, P.L.C. P.O. Box 828 Bloomfield Hills, Michigan 48303 (248) 641-1600.					
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	Hamess, Dickey & Pierce, P.L.O. Reg. No. 39,052					
	Bloomfield Hills, Michigan 48303 (248) 641-1600					

INFORMATION OF DISCLOSURE STATEMENT





#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group Art Unit:

To Be Assigned

Examiner:

To Be Assigned

Serial No.:

09/546,145

Inventor(s):

Richard D. Bednar

Filed:

April 10, 2000

For:

Gang-Type Rotary Lawn Mower

Attomey Docket:

7016R-000015/COA

Hon. Commissioner of Patents and Trademarks Washington, D.C. 20231

#### CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231 on

Sir.
Pursuant to 37 C.F.R. 1.97 and 1.98, Applicant(s) hereby submit(s) an Information Disclosure Statement for consideration by the Examiner.

#### LIST OF PATENTS, PUBLICATIONS OR OTHER INFORMATION

The patents, publications or other information submitted for consideration by the Office (except U.S. patent applications) are listed on PTO-1449, attached hereto.

ii.	COPIES	Submitted herewith is a legible copy of (I) each U.S. and foreign
	a	patent; (ii) each publication of that portion which caused it listed; and (iii) all other information or that portion which caused it to be listed, except that no copy of a U.S. patent application is included.
	b	Any patents, publications or other information which are listed on PTO-1449 or on the copies of PTO-892 but which are not enclosed herewith were previously cited by or submitted to the PTO in one of the following applications which has been relied upon for an earlier filing date under 35 U.S.C. 120:
	<u>u.s.</u>	Serial Number Ú.S. Filing Date
	CONCISE	EXPLANATION OF THE RELEVANCE (check at least one box)
III.	a. X	Except as may be indicated below in (b), all of the patents, publications or other information are in the English language (concise explanation not required).
	bX	A concise explanation of the relevance of all patents, publications or other information listed that is not in the English language is as follows: See English language abstract attached to the references as necessary.
	c	The following additional information is provided for the Examiner's consideration.
١٧.	CROSS R	EFERENCE TO RELATED APPLICATION(S)
	The Examplect matter th	tiner is advised that the following co-pending application(s) contain(s) at may be related to the present application. By bringing this(these) the Examiner's attention, Applicant(s) does(do) not waive the prisions of 35 U.S.C. § 122.
		nal No. Filing Date Art Unit
V.	THIS IDS	S IS BEING FILED UNDER 37 C.F.R. 1.97(b): (check one box)
	a	within three months of the filing date of a national application (37 C.F.R. 1,97(b)(1)). No fee or certification is required.
	b	within three months of the date of entry of the national stage as set forth in § 1.491 in an international application (37 C.F.R. 1.97(b)(2)). No fee or certification is required.

# VI. THIS IDS IS BEING FILED UNDER 37 C.F.R. 1.97(c): (check one box)

before the mailing date of a Final Office Action under 37 C.F.R. 1.113 (See 37 C.F.R. 1.97(c)(1)) or before the mailing date of a Notice of Allowance under 37 C.F.R. 1.311 (See 37 C.F.R. 1.97(c)(2)).

No certification; therefore, a fee in the amount of \$240.00 is required by 37 C.F.R. 1.17(p).

See the certification below. No fee is required.

# VII. CERTIFICATION UNDER 37 C.F.R. 1.97(e) (check only one box)

The undersigned hereby certifies that

each item of information contained in the IDS was cited in a communication from a foreign or PCT Patent Office in a counterpart foreign or PCT application not more than three months prior to the filing of this IDS; or

no item of information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application or, to the best of my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. 1.56(c) more than three months prior to the filing of this statement.

Some of the items of information were cited in a communication from a foreign Patent Office. As to this information, the undersigned certified that each item of information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application or, to the best of my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. 1.56(c) more than three months prior to the filing of this statement.

Page 3

VIII.	PAYMENT C	OF FEES (check one box)	٠,
	gas-participation of the same	identified fee.	240.00 is enclosed for the above-
		\$240.00 for the above-incorpaper is attached.	ecount No. 08-0750 in the amount of dicated fee. A triplicate copy of this
cited	esent invention only in the in only in the in ort of the same obt.  t.	on from each of these release terests of candor and without or contain matter which an avious, either singly or in con	presently on file patentably distinguish notes. The above references are being out any admission that they constitute ticipates the invention or which would abination, to a person of ordinary skill in
conta wrong petitio	ct the unders I rule, the PT on if necessar	igned. It it is determined to Consider to consider to consider to consider the appropriate the appropriate to consider the appropriate the appropriate to consider the appropriate the appropr	eming this IDS, he/she is requested to that this IDS has been filed under the this IDS under the proper rule (with a te fee to Deposit Account No. 08-0750.
C.F.F	Please char 2. 1.16 or 1.17	ge any additional fees or o to Deposit Account No. 08-	credit any overpayment pursuant to 37 0750.
		•	Respectfully submitted, HARNESS, DICKEY & PIERCE, P.L.C.
Date	7/19/07	<u>.</u>	By: David P. Utykanska Reg. No. 39,052
Enclo	osures: X	PTO-1449 PTO-892 References Foreign Search Report Fee Other:	
P.O. Bloo	Box 828	R PIERCE, P.L.C.	

FORM HDP-1449 (Based on FormPTQ-1449)  PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)  Sheet 1 of 2	ATTORNEY DOCKET NO. ! 7016R-000015/COA	SERIAL NO. 09/646,145
JR 2 4 2000	APPLICANT; RICHARD D. BEDNA	R
TRADEMATH OTH	FILING DATE: APRIL 10, 2000	GROUP: To Be Designation 367)

العاورتيين			Date	Name	Class/ Subclass	(If appropriate
a.	Examiner's Initials	Document Number	08.0		Subclass	
1.	(A)	1,961,710	June 1934	Pol		<del>                                     </del>
7		2,504,259	April 1950	Ford		+=-
3.	1	2,936,561	May, 1960	Grimes	1	+
4	_	3,070,938	Jan. 1963	· Winget	<u> </u>	
5.		3,118,266	Jan. 1964	Colburn	<u> </u>	<del> </del>
-+		3,135,079	June 1964	Dunn		
6.		4,308,713	Jan. 1982	James		<del>                                     </del>
7.		4,901,507	Feb. 1990	Cracraft		
8.		5,137,100	Aug. 1992	Scott et al.		1/_
9.		5,280,695	Jan. 1994	Nunes, Jr., et al:		
10.		5,293,729	March 1994	Curry et al.		
11.			March 1994	Smith		
12.		5,297,378	-Sept. 1994	Reichen et al.		
13.		5,343,680	Oct. 1994	Peler		
14.		5,355,665	May 1995	Schueler.	<b>-</b> .	
15.		5,412,932	June 1995	Smith .		
16.		5,423,565 `	Jan. 1996	Umemoto et al.		
17.		5,481,857		Lonn		
18.		5,497,604	March 1998	Bednar		
19	(A)	6,047,530	April 2000	. Dound		ate Consider

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant.

<u>.</u>

2 1 2000 G		
PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION (Use several sheets if necessary) Sheet 2 of 2	ATTORNEY DOCKET No. 7016R-000015/COA	SERIAL NO. 09/548,145.
	APPLICANT: RICHARD D. BECHAR	‡* ***
	FILING DATE: APRIL 10, 2000	GROUP: TO BE DESIGNATED

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Bille	Examiner's Initials	Document Number	Dale	Country	Class/ Subclass	Yes	No
Design	75	7,804,519	Aug. 1978	NL			<u> </u>
2	8	88/05998	Aug. 1988	wo			ļ
3.	0	0,342,700	Nov. 1989 .	·· EP			
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印度が	Examiner's Initials		
1.	P	Mountfield "Domestic Grass Machinery" (Date unknown).	
2.	0	Turf Blazer 1040 Diesel, Howard Price Turf Equipment (advertising brochure) (Date unknown).	•
3.	<i>a</i> 5	Nunes Rolary Mower, John Deere 3364 Deck Attachment; Nunes Manufacturing, Inc. 6/17	ì

			Date Considered
Examiner:		/x//7//0D ·	

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant:

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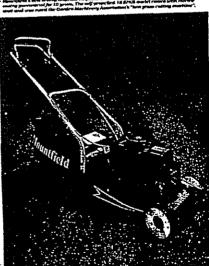
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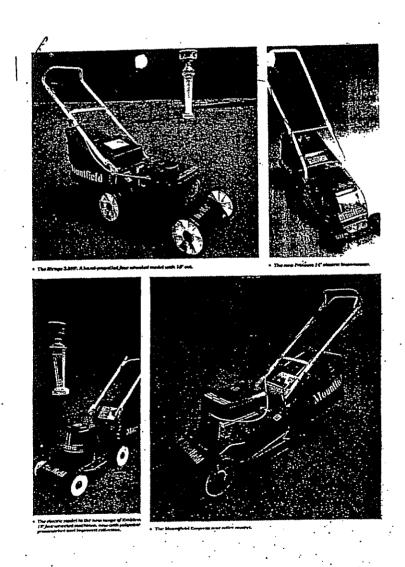
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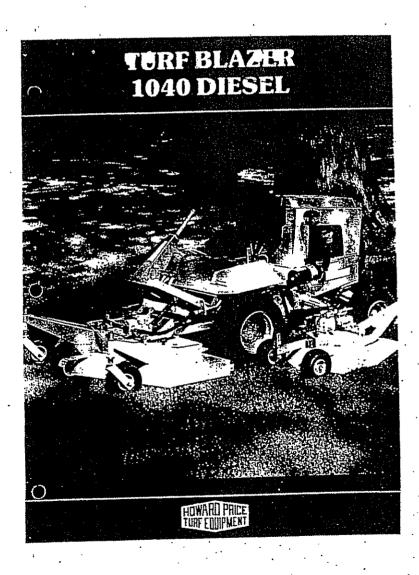
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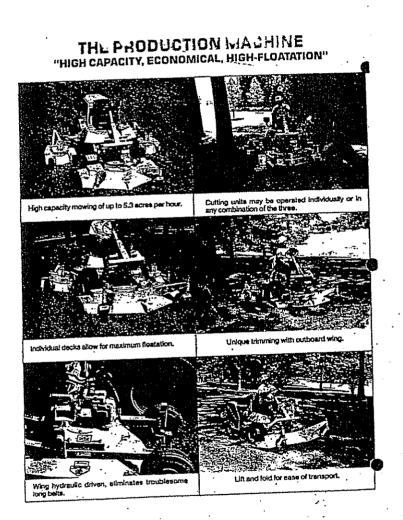












### POWERED BY YAP'NER

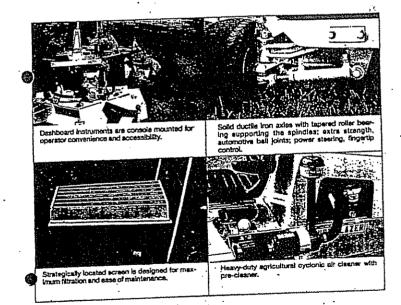


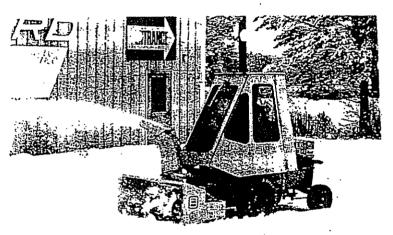
Yanmar 4-cyfinder diesel, water cooled 47 ho in 3600 RPM governed down to 40 hp in 3000 RPM for exceptional diesel lagging power when the going gets tough. This computer designed diesel is very fuel efficient and will perform countless hours of dependable service.

# AMO DAMA

The heavy-duty hydrostatic transmission coupled to a Dana GT-20 axis converts engine horsepower directly into traction without clutches or the shifting of gears. Response to operator control of speed and direction is both smooth and positive, providing infinitely variable speed from 0 to 10 mph.

A triple B section, powerband belt transmits power simply and efficiently for PTO drive system requirements.





YEAR-ROUND PERFORMANCE.

When the show moves in, the 1940 moves it out with a two-stage, 60° show blower. Electric chute rotator enables the operator to deposit show in sny desired area with only the touch of a switch.

The steel and safety glass cab, mounted on the R.O.P.S. framework, commands a 360° view. Cab panels are demountable for use of R.O.P.S. for summer mowing season. The hot-water heater and defroster insura comfort and visability to the operator.



The 60" broom is ideal for sweeping light snow or cleaning debrts off sidewalks. Available as 30° set angle on the brush head to the right or optional manual adjustment to either side.



### SPECIFICATIONS TURF BLAZER 1040 .....

Yannar 4-cylinder dissel, water-cooled 47 HP & 3500 RPM governored down to 40 at 3000 RPM. 83.11 CIO, 15.08 compression ratio. Full pressure trochold oil pump, 5 quart capacity with spin-on feet. High efficiency/low consumption swift type pre-combustion chamber, coal tron cylinder head block and oil pan. Double but filter and Racor water separator. Fest response centrifugal type governor. Thermostart system for cold weather starting, heavy duty agricultural cyclonic air cleaner with practicener.

5½ gallon, tractor mounted reservoir; High capacity of cooler. HYDRAULIC PTO DRIVE

Sunstrand model 15, inline transmission with acceleration control valve mounted on Dana GT-20 transaula. FUEL CAPACITY TRACTION DRIVE

From traction tires, high-floatation:  $23-10.50 \times 12$ , 4-ply rating. Rear steering tires, high floatation;  $18-8.50 \times 8$ , 4-ply rating. Both front and rear tires mounted on demountable drop center rims. WHEELS/TIRES

Heavy formed and welded steel unitized frame with structural having reinforcement. Dual 7" drum type brakes, independently operable for steering assist, single pedal for service and parking dynamic braking through traction time. CHASSIS BRAKES

STEERING

parking; dynamic braking through traction drive.

TRIM HGF power steering assembly with 15" wheel. Rear steering axis, heavy-duty, solid ductile iron, Steering spirides are supported with tapered roller bearings.

Throttle, PID and hydratisk lift levers, key-operated ignition switch, nocker type switches for Egnis, accessory and cold start, hourmeler, engine water temperature and had gauges, oil pressure and electrical discharge warning ignish, 120 Heavy-duty battery.

High torque, triple B section band belt drive system, automatic fast response braking on disengagement, isleadcoping U-joint type drive shaft to attachment: OPERATOR'S CONSOLE

PTO DRIVE

This product conforms to ANSI specifications 871.4 1980. CERTIFICATION

# 104" ROTARY MOWER ATTACHMENT

104 WIDTH OF CUIT CUTTING CAPACITY Up to 5.3 scree per hour.

FNGINE

 $50^\circ$  rear discharge, 1½° to 5½° cutting height; Three [3] %e" x 2½° x 20½° heavy-outy, heat treated blades on 1½° blade shafts. CENTER MOWER

craces on 134 Clabs shalls.

11 gauge formed steel blade housing Formed and welded 71s\* steel spindle support frame for maulmann rigidity. Yes-belt shock absorbing Type drive to all spindles from PTO driven gearbox. Deck has apting counter belanced suspension system for maximum drive traction; Two (2) from mounted 4.10-3.50 x 4, 2-pty pneumatic savinsi caster wheels with full roller bearing suspension; Single 2W\* x 4\* stroke cylinder foshydraulic power lift.

Front deck con be operated with wings folded. 24" cut with rear discharge; 114" to 514" curting height; Deck frame constructed of 116" x 2" x 11 gauge steel hibing, mounted to 314" blade hub channel; Deck pan constructed of 11 gauge formed steel. WING MONERS

Hydraudic drive by gearbox mounted hydrautic pump; Plamp capacity of 11 GPM in 2500 PSI. 1.18 CID; Replaceable informal wear plata. WING DRIVE

Gear type: 1.02 GID with internal wear plate and case drain. Two (2) from mounted wheels;  $4.10-3.50 \times 4^\circ$  wide, 2-pty pneumatic casters and 10% x 3% serpneumatic caster wheels on rear. DECK MOTOR DECK WHEEL

# ACCESSORIES

SNOW BLOWER

Two-stags, 60° with 14" diameter auger and an 18" blower fan. Electric chute rotator standard. TYPE

525 lbs. WEIGHT

SNOW PLOW

50°, heavy-duty rosed steel blade. High curbon hardened steel edge, spring loaded blade. Optional hydrausic angling kit available. TYPE

150 lbs. WEIGHT

BROOM

TYPE

60° brushhead by 24° diameter. Fixed angle 30° to right, Optional manual angling 30° to either side. Overall dimensions and weight approximate.

300 lbs. WEIGHT

ROLL OVER PROTECTION SYSTEM (R.O.R.B.) --

1% x 2" x %" wall, structural steel tubing. 14 gauge sun roof. Soal belts standard. Meets OSHA 1928.52 and SAE J1194 standards: Varicie height with R.O.P.S. 78". TYPE

WEIGHT

CAB

Formed 14 gauge panels mount to R.O.P.S. frame. Salety glass in all windows. Windshield wiper standard. TYPE

	OVERALL DIMENSIONS	
	WINGS FOLDED	WINGS UNFOLDED
	52*	52"
HEIGHT	80"	105%
WOTH	· · · · · · · · · · · · · · · · · · ·	114"
LENGTH W/TRACTOR	114"	610
WEIGHT	610#	2024
WEIGHT W/TRACTOR	2024	
WEIGHT THIS WOLLD		

# MISSING PAGE(S) FROM THE U.S. PATENT OFFICE OFFICIAL FILE WRAPPER

43 - 1449 AB #3

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3571 To be assigned Richard D. Bednar 09/548,145 April 10, 2000 GANG-TYPE ROTARY LAWN MOWER

Attorney Docket No. 7016R000015/COA RESPONSE TRANSMITTAL AND EXTENSION OF TIME REQUEST (IF REQUIRED)

THE COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D. C. 20231

FOR

FEE CALCULA	Claims	High Previo	est No	3.	Number Extra	<del></del> _	Rate		Additional Fee
	Remaining	Previo			0		**** \$18.00	=	-
Total Claims	12	-	20	=		<u> </u>	\$78.00	=	
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[ ] Applicant re to the outsta	quests a	Action.  S (If appearant)	nonth The l	extens large	entity fer	e is .	2)	,	

A check is enclosed to cover the fees as calculated above.

[] The fees calculated above are to be charged to Deposit Account No. 08-0750.

If for some reason applicant has not requested a sufficient extension of time and/or has not paid a sufficient fee for this response and/or for the extension of time necessary to prevent the abandonment of this application, please consider this as a Request for an Extension for the required time period and/or an authorization to charge our Deposit Account No. 08-0750 for any fee which may be due. A duplicate copy of this sheet is enclosed.

HARNESS, DICKEY & PIERCE, P.L.

P. O. Box 828 Bloomfield Hills, Michigan 48303 (248) 641-1600

David P. Utykanski Reg. No. 39,052

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JA - 0248



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group Art:

3671

Examiner.

To Be Assigned

Applicant

Richard D. Bednar

Serial No.:

09/548,145

Filed:

April 10, 2000

For:

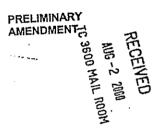
GANG-TYPE ROTARY

LAWN MOWER

Attorney Ref.:

7016R-000015/COA

Hon. Commissioner of Patents and Trademarks Washington, D.C. 20231



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Ву

David RutyWL

Sir.

Prior to examination of the present application, please consider the following:

IN THE CLAIMS

Please add new claims 21-31, as follows:

(New) A gang-type rotary lawn mower comprising:

a frame supported by front and rear wheels for movement over the ground,

M

B

Serial No. 09/546,145 Attorney Docket No. 7016R-000015/COA

a power source which is mounted on said frame and which drives at least two of said wheels,

an operator's seat mounted on said frame,

a steering system enabling the operator to steer said lawn mower,

at least one front rotary cutting deck assembly mounted on said frame in front of said front wheels;

at least one rear rotary cutting deck assembly mounted on said frame behind said front deck assemblies and between said front and rear wheels; and

each of sald front and rear deck assemblies including a deck defining a downwardly opening space, at least one cutting blade mounted on a spindle for rotation therewith and at least one roller supporting said deck for movement over the ground, said roller extending substantially across the entire width of said deck.

(New) A lawn mower as set forth in claim wherein each deck assembly is connected to said frame by a respective lifting arm operable to lift the associated deck assembly relative to said frame, such that each of said deck assemblies is connected by its own lifting arm to said frame.

(New) A lawn mower as set forth in claim wherein each of said front and rear deck assemblies includes a pair of laterally-spaced, generally vertically-extending side plates having forward ends, a first front wheel supporting one of said side plates for movement over the ground, and a second front wheel supporting the other of said side plates for movement over the ground, wherein said roller extends between said side plates and supports said side plates for movement over the

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